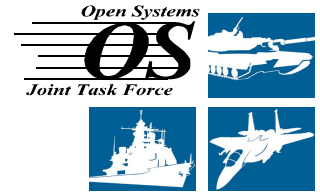


Availability of Real-time POSIX Conformance Test Suites

**Curtis Royster, Jr.
DISA CFITS & OSJTF
Lt Col Glen Logan
OSJTF**



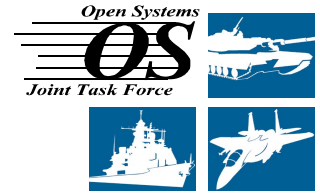
Why the TWG/IPT Should be Interested?



- ♦ **Verify RTOS Conformance to IEEE Realtime POSIX**
- ♦ **Help DII COE RT TWG/IPT come to grips for a KPC**
- ♦ **Encourage one flavor of RT POSIX OS, not multiple**
 - A clearly defined target platform for application development
 - Minimize porting costs
 - POSIX is the only basis for developing RT applications
 - Standard Conformance/Validation Process
 - Provide an effective and equitable process to assist and encourage industry in RTOS and RT application development
 - Create a broader set of reusable components for key DoD RT systems ... while reducing cost
- ♦ **Increase confidence in vendor claims of POSIX Compliance.**



POSIX OS Test Suites

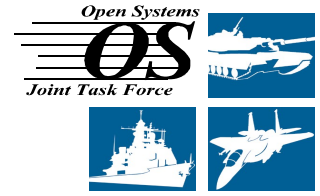


- ♦ **Public Domain Non Real-time (C-bindings)**
 - **IEEE**
 - ♦ **PCTS (POSIX 1003.1-1990, FIPS 151-2) (FIPS 151-2 NIST withdrawn FIPS)**
 - **The Open Group**
 - ♦ **VSX-PCTS (POSIX 1003.1-1990, FIPS 151-2)**

Note: PCTS last update 1995, VSX-PCTS last update Nov 1999



RT POSIX OS Test Suites



- ◆ **COTS - The Open Group**
 - Available today for **POSIX 1003.13 PSE 54 Platform**
 - ✦ **VSX4 (POSIX 1003.1-1996)**
 - ▮ **VSC (POSIX 1003.2-1993)**
 - ▮ **VSRT (POSIX 1003.1b-1993, RT Extensions)**
 - ▮ **VSTH (POSIX 1003.1c-1995, RT Threads)**

Note: Future tests for other IEEE POSIX .13:1998 Profiles (Units of Functionality) are planned



RT POSIX Test Suites



♦ Available - Emerging RT

- VSRTE (POSIX 1003.1d-1999, Additional Real-time)
- VSART (POSIX 1003.1j-2000, Advanced Real-time)
- VSTRC (POSIX 1003.1q-2000, Trace)

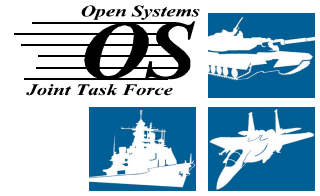
♦ For more information:

- Subscribe to

ogrealtime-test-request@opengroup.org



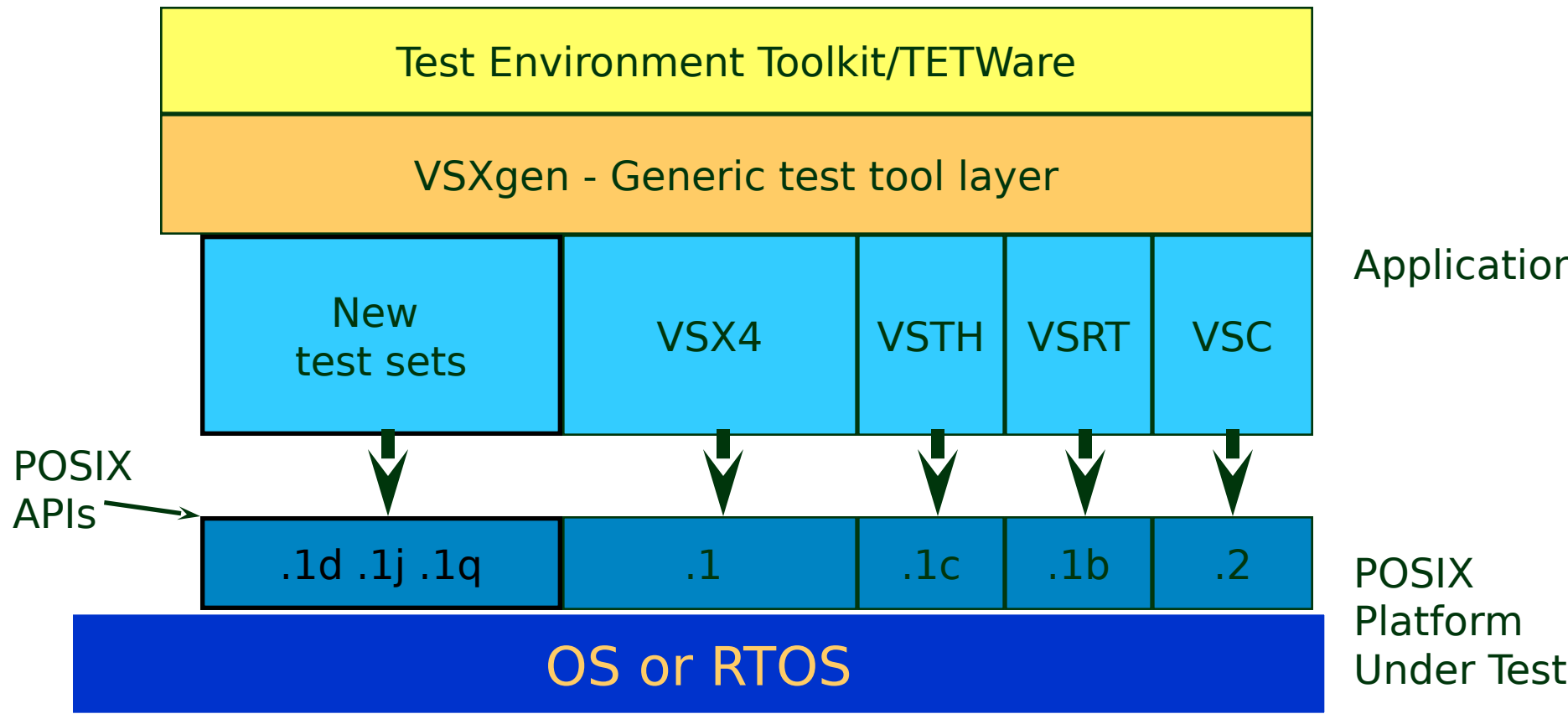
Future Enhancements



- ♦ **Current test suites to be modified to support --**
 - **POSIX 1003.13 for Units of Functionality for PSE 51-55**
 - **Application Conformance Checker for APIs and Units of Functionality PSE 51-55 for C and C++**



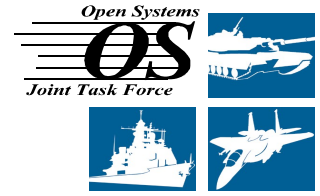
OS Test Tool Architecture



Note: All POSIX options are tested by Open Group test tools



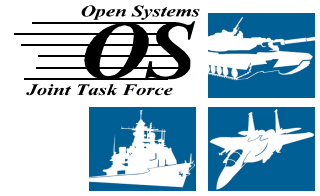
Availability of Test Suites



- ♦ **OSJTF contract vehicle includes 5 Site Licenses and one year support for the following:**
 - **VSX4 (POSIX 1003.1-1996 mode)**
 - **VSC (POSIX 1003.2-1993)**
 - **VSRT (POSIX 1003.1b-1993)**
 - **VSTH (POSIX 1003.1c-1995)**



License Details



- ♦ **The Open Group through the OSJTF is offering to the DII COE TWG/IPT up to five government/FFRDCs RT Beta test sites with one year support .**
- ♦ **Technical support requires a single POC for each site.**
- ♦ **After license agreement is signed by site POC, test suites will be available for download from The Open Group FTP site.**
- ♦ **<http://www.opengroup.org/realtime/posixtest/>**



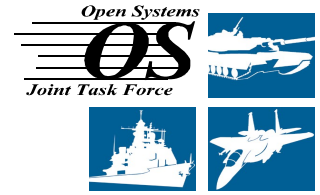
License Conditions



- ♦ The test results can not be publicly disclosed or used to give vendors a competitive advantage.
- ♦ Vendors must go through current industry practices to be certified as POSIX compliant.
- ♦ The TWG/IPT is not an official authority to grant that a vendor's product has "PASSED" or "NOT PASSED" The Open Group's POSIX test suite.
- ♦ The test results can **not** be used by an RTOS vendor to claim that their product has "PASSED" test suite without written consent by The Open Group.
- ♦ The test results can be shared within DoD agencies and DoD contractors/equipment manufactures (assuming the equipment manufactures does have a direct contract with DOD, then a Non Disclosure Agreement is needed).



Suggested RT POSIX BETA Sites



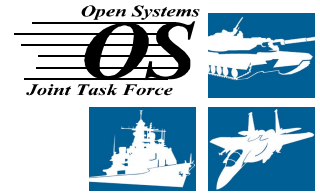
- ◆ **DISA**
- ◆ **USAF**
- ◆ **US Army**
- ◆ **US Navy**
- ◆ **USMC/OSD**

Register w/ OSFJTF POC

**Curtis Royster, Jr. At (703) 735-
3558**



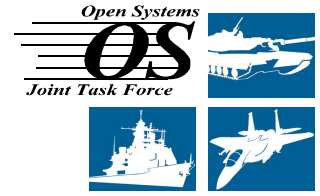
CORBA Test Suite Status



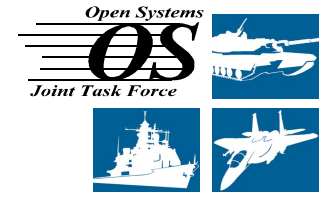
- ♦ **VSOrb/VSJOrb COTS Open Group Test Suites**
 - **Current Version 2.1**
 - **V2.3 Version - October 2000**
 - **V2.4 Version possible late 2000**
 - **V3.0 Version late 2001**
- ♦ **Interoperability (IIOP) Demonstrations based on CORBA V2.3**
 - **13-15 June 2000, Controlled Test (4 participants) at OMG meeting Oslo, Norway**
 - **11-15 September 2000, Open to all vendors at OMG meeting Burlingame, California**
- ♦ **Certification Program**
 - **Revised CORBA Brand based on V2.3 or V2.4 - late 2000**



Real-time CORBA



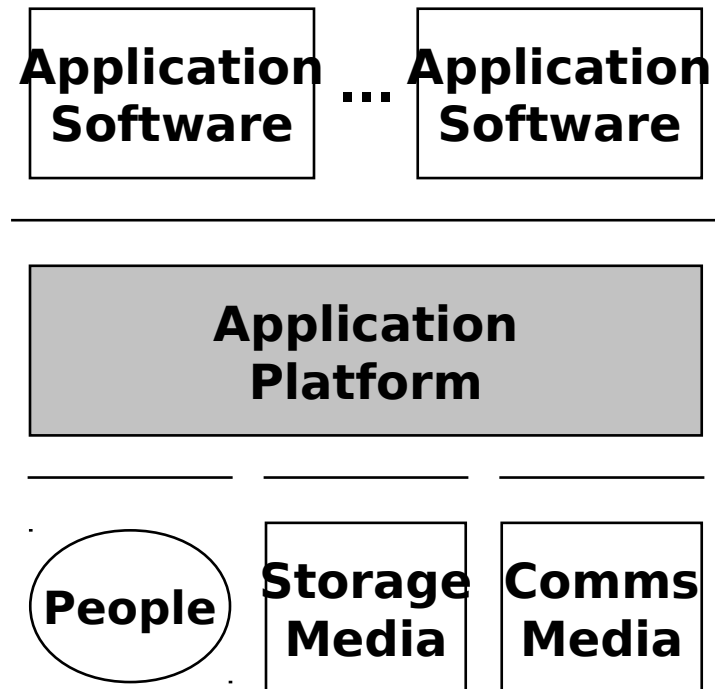
- ♦ **RT CORBA Version 1.0 approved by OMG July 1999**
- ♦ **Initial Test Suite Development Project Plan presented to OSJTF/DISA July 1999**
- ♦ **Project work-plan on hold pending**
 - **documentation of user conformance/interoperability requirements**
 - **OSJTF FY 2000 funding**
- ♦ **Initial RT OMG Product Profile targeted for June 2000**
- ♦ **RT Beta Test suite available 6 months after funding and work-plan approval**



BACKUP CHARTS

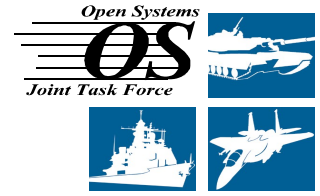


Compliance





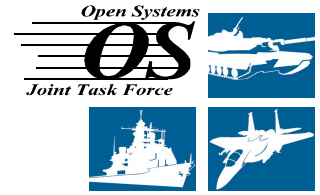
CORBA Working Entities



- ♦ **CORBA Standard -- OMG**
- ♦ **Product Profile Definition -- OMG**
- ♦ **Test Suite development -- Open Group**
- ♦ **Branding Program -- Open Group**
- ♦ **Resolution Process -- OMG/Open Group**



Subscribe RT POSIX URL



ogrealtime-test-
request@opengroup.org